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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MURAMATSU & ASSOCIATES
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EXAMINER

CHOE, HENRY

ART UNIT	PAPER NUMBER
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2817

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/700,214

Applicant(s)

TH
MIEDA, FUMIO

Examiner

Henry K. Choe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-3, 6-8, 12 and 13 is/are rejected.
7) ☒ Claim(s) 4, 5 and 9-11 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Claim Objections

Claim 6 is objected to because of the following informalities: in line 3 of claim 6, should "register" be --resistor--? . Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6-8, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Murfin.

Regarding claim 1, Murfin discloses a vacuum tube amplifier circuit comprising a vacuum tube (11) having a cathode terminal (15) and a plate terminal (13) and a grid terminal (17) and the cathode terminal (15) being heated by a heater [(the element connected to the voltage source Eh); see lines 19-21 of column 2] for releasing electrons from the cathode terminal (15), a low source voltage (Ebb) which is supplied to the plate terminal (13) of the vacuum tube (11) and the heater (the element connected to the voltage source Eh), a first grid resistor (29) which is series connected to the grid terminal (17) of the vacuum tube (11), and a positive voltage (Ebb) which supplied to the grid terminal (17) through the grid resistor (29).

Regarding claims 2 and 12, Murfin further comprising a plate resistor (19) which is connected to the plate terminal (13) of the vacuum tube (11) and the low source voltage (Ebb) is supplied to the plate terminal (13) through the plate resistor (19) and to the heater (the element connected to the voltage source Eh).

Regarding claim 3, the positive voltage (Ebb) supplied to the grid terminal (17) of the vacuum tube (11) is produced by dividing the low source voltage (Ebb) by a voltage divider (the resistors 19 and 29 form a voltage divider).

Regarding claims 6 and 13, wherein the distortions are created by a characteristic of the vacuum tube (11) and the grid resistor (29) to add specific sound effects to an input signal (INPUT).

Regarding claim 7, Murfin discloses a vacuum tube amplifier circuit comprising a vacuum tube (11) having a cathode terminal (15) and a plate terminal (13) and a grid terminal (17) and the cathode terminal (15) being heated by a heater [(the element connected to the voltage source Eh); see lines 19-21 of column 2] for releasing electrons from the cathode terminal (15), a low source voltage (Ebb) which is supplied to the plate terminal (13) of the vacuum tube (11) and the heater (the element connected to the voltage source Eh), a grid resistor (29) which is series connected to the grid terminal (17) of the vacuum tube (11), a positive voltage (Ebb) which supplied to the grid terminal (17) through the grid resistor (29), and the resistors (19 and 29) can be read as the claimed bias control circuit since they affect the bias voltage applies to the vacuum tube (11) which controls an output bias voltage (bias voltage applies to a grid terminal 17) of the vacuum tube (11) to a predetermined voltage.

Regarding claim 8, the bias control circuit (19, 29) is configured by a negative feedback loop (the elements 13, 31, 19, 29, 27 and 17 form a negative feedback loop) for automatically control the output bias voltage (bias voltage applies to a grid terminal 17) to the predetermined voltage.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott (Fig. 1).

Regarding claim 1, Scott (Fig. 1) discloses a vacuum tube amplifier circuit comprising a vacuum tube (12) having a cathode terminal (156) and a plate terminal (158) and a grid terminal (154) and the cathode terminal (156) being heated by a heater (22) for releasing electrons from the cathode terminal (156), a low source voltage (+ terminal of the battery 24) which is supplied to the plate terminal (158) of the vacuum tube (12) and the heater (22), a first grid resistor (75) which is series connected to the grid terminal (154) of the vacuum tube (12), and a positive voltage (24) which supplied to the grid terminal (154) through the grid resistor (75).

Regarding claim 7, Scott (Fig. 1) discloses a vacuum tube amplifier circuit comprising a vacuum tube (12) having a cathode terminal (156) and a plate terminal (158) and a grid terminal (154) and the cathode terminal (156) being heated by a heater (22) for releasing electrons from the cathode terminal (156), a low source voltage (+ terminal of the battery 24) which is supplied to the plate terminal (158) of the vacuum tube (12) and the heater (22), a grid resistor (75) which is series connected to the grid terminal (154) of the vacuum tube (12), a positive voltage (24) which supplied to the grid terminal (154) through the grid resistor (75), and the elements (22, 23 and 75) can be

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read as the claimed bias control circuit since they affect the bias voltage applies to the vacuum tube (12) which controls an output bias voltage (bias voltage applies to a grid terminal 154) of the vacuum tube (12) to a predetermined voltage.

Allowable Subject Matter

Claims 4, 5 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (2,580,875; 2,775,659; 3,011,101; 2,485,748) are the vacuum tube amplifiers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (571) 272-1760.



HENRY CHOE
PRIMARY EXAMINER

#1331